



U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101
SEP 10 1988

REPLY TO
ATTN OF:

HW-112

Peter K. Ressler
Compliance Manager
Chemical Processors, Inc.
2203 Airport Way South, Suite 400
Seattle, Washington 98134

Re: Proposal for Monitoring, Analysis and Testing for Chemical Processors,
Inc. Pier 91 Facility.

Dear Mr. Ressler:

Enclosed are the comments and concerns of the U.S. Environmental Protection Agency (EPA) after review of the Proposal for Monitoring, Analysis and Testing at your Pier 91 Facility submitted to our office on August 10, 1988.

Should you or your consultant have any questions regarding the enclosed comments, please contact Bill Adams of my staff at (206) 442-2806.

Sincerely,

Charles W. Rice, Chief
RCRA Compliance Section

Enclosure

cc: Marc Horton, Washington Department of Ecology

USEPA RCRA



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Bill Adams 56
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PROPOSAL FOR MONITORING, ANALYSIS AND TESTING
CHEMICAL PROCESSORS, Pier 91
EPA COMMENTS ON WORK PLAN

Part A - Sampling Plan

1. The sampling plan should include an explanation of the methods and rationale used to determine where the groundwater monitoring wells and soil borings will be installed, and how many samples will be collected.
2. The U.S. EPA's order explicitly states "that groundwater should be sampled and analyzed on at least two separate occasions." The sampling plan states that "single-time" groundwater samples will be collected. The sampling plan should include at least two rounds of groundwater sampling and this should be reflected in the project schedule.
3. The sampling plan should state whether the soil borings will be closed or utilized as wells, and what methods will be used. The sampling plan states that "up to four deep borings will be drilled in an attempt to encounter the deep confined aquifer ..." It is not clear what course of action will be taken should the deep confined aquifer not be encountered in any of the four proposed borings.
4. In 1979, there was a large oil spill (420,000 gal) in the Marine Diesel Oil Yard. A soil boring and groundwater monitoring well should be installed to determine the nature and extent of contamination. The site was paved in 1986. A method for installing the wells through the concrete or asphalt should be detailed in the sampling plan.
5. The number of soil borings proposed in the sampling plan may be inadequate in characterizing the lateral extent of soil contamination. Additional soil borings should be completed in all storage tank yards. Contamination sources may be difficult to define due to the tidal influence on groundwater movement.
6. The sampling plan should describe the method used to collect composite samples from soil boring cores. Composite samples may obscure the vertical extent of contamination by mixing contaminated and uncontaminated soils.
7. The sampling plan does not include collecting surface soil samples. Surface soil samples should be obtained at all monitoring well locations. The samples should be collected at the ground surface to a depth of 6 inches.
8. The analysis of core samples for volatile organics should be addressed in the sampling plan. Since volatile organics will dissipate over time archiving of soil samples for volatile organics analysis should not be performed.
9. The sampling plan does not adequately describe surface completion of wells. Details on concrete, casings, venting, and draining should be specified.

Part B - Project Schedule

1. Since groundwater levels at the CHEMPRO site are influenced by tidal fluctuations, water level measurements and tidal cycle studies should be conducted concurrently.

Part C - Health and Safety Plan

OK - 1. General training requirements for Level B protection should be stated in the health and safety plan. Section 6.0 of the health and safety plan mentions that Level C and Level D personal protection will be required for the majority of the proposed work, and that Level B protection may be required under certain conditions. Workers should be trained in Level B personal protection, and be prepared to work under such conditions.

OK - 2. Section 7.0 of the health and safety plan states, "Safety equipment will be available onsite." The listed equipment should be located in the immediate vicinity of the work area and easily accessible.

Part D - Quality Assurance Project Plan

* not sure what means addresses. → 1. Section 4.2.2 of the quality assurance project plan states that borings will be continuously sampled, and also composite sampled. The quality assurance project plan should describe soil boring sampling methods in significantly more detail.

2. Section 4.3 of the quality assurance project plan should describe monitoring well installation in more detail. Each well should include a sump to retrieve sinking product, and to clear silts. The well screens should extend 6-10 in above the high water table in order to intercept floating product.

incorporate results phase I as discussed per. 3. Existing groundwater monitoring wells must be capable of providing representative samples. Documentation on the design and construction of the existing wells including well location, well logs, and previous analytical results should be reviewed. If this is not possible, then it may be necessary to replace the existing wells on a case-by-case basis.

4. [] The quality assurance project plan does not include the collection of samples necessary to represent background levels of soil or groundwater contamination. A minimum of one upgradient monitoring well is necessary in order to compare upgradient, and downgradient groundwater quality.

5. The quality assurance project plan does not indicate whether or not the proposed monitoring wells on the north side of the foamite tanks will be used to collect background samples. If contamination from past practices in this area is suspected, then it may be necessary to place a background well further north.